

REMARKS

Claims 30-62 are pending. By this Amendment, no claims are cancelled, claims 30-35, 48, 51-53, 55-57 and 61-62 are amended and new claims 63-66 are added.

Drawings

The Office Action objected to the drawings indicating that various elements depicted in Fig. 1 should be labeled as laser, pulse shaper, processing unit, optical amplifier, measurement unit and control unit, and that various elements of Fig. 2 should be labeled as well. The Office Action indicates that such labeling is “required by 37 C.F.R. 1.83(a). 37 C.F.R. 1.83(a) recites in part, “however, conventional features disclosed in the description and the claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box).” Accordingly, Applicant notes that 37 C.F.R. 1.83(a) does not require that the box be labeled, but recommends that it be so. However, to advance prosecution, Applicant has submitted herewith amended drawings in compliance with the Examiner’s request. Applicant respectfully requests that the Examiner withdraw the objection.

Cited References

The Office Action cites the Some reference which is identified in the Office Action as U.S. 7,539,045. This patent number is actually a patent issued to Hans Marc Bert Boeve. There is a United States patent issued to Some (U.S. Patent 7,359,045) that Applicant assumes that the Office Action intended to refer to. No form 892 identifying prior art cited by the Examiner was received with the Office Action. Applicant requests that he Examiner confirm whether this is the prior art intended to be cited and mail an appropriate form 892 with the next Office Action.

35 U.S.C. 102

The Office Action rejected claims 30-35, 53 and 55 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent 6,482,199. The Office Action further cites Liu (U.S. Patent 2004/0017560) and Some (U.S. Patent 7,359,045) (presumed to be mistakenly identified in the Office Action as 7,539,045), as being presented to provide evidence of inherency in accordance with MPEP § 2131.01 (III). Applicant respectfully traverses the rejection.

According to MPEP 2112 (IV): “[t]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

Citation to Liu and Some does not demonstrate that the missing descriptive matter in Neev is necessarily present in the thing described in Neev and that it would be so recognized by person of ordinary skill. In fact, careful reading of Liu demonstrates that this is not the case as explained below.

It is understood by those of ordinary skill in the art that modifying the pulse length does not automatically alter the spectral composition of laser radiation. In paragraph 21, Lei indicates that ΔT times $\Delta \lambda$ is *greater than or equal to* a constant. Note particularly that ΔT times $\Delta \lambda$ is not equal to a constant but is greater than or equal to a constant. It is important to understand that according to this relationship, for each laser pulse length, there exists a minimum band width limit. In other words, for a given band width, a certain lower limit of laser pulse length exists. However, most pulsed laser radiation is delivered in pulses of a sufficiently long length that they do not approach this lower limit of pulse length that begins to effect band width. In most cases the laser pulse length is far longer than the lower limit resulting from the existing band width. Accordingly, modifying the laser pulse width does not automatically change the band width of the laser radiation if the length of the laser pulse is above the lower limit of pulse length for that band width. In the vast majority of cases, where ΔT times $\Delta \lambda$ is *greater than* the constant, the laser pulse width can be changed without altering the band width. For example, in a circumstance where the laser pulse length is well above the minimum for a given band width of the laser radiation no change in band width occurs.

Accordingly, it is not inherent that changing pulse width alters the spectral band width because “inherency may not be established by probabilities or possibilities, the mere fact that a certain thing *may* result from a given set of circumstances is not sufficient.” Because only under certain narrow circumstances is band width altered by changing the pulse duration, this limitation of the claims is not inherent in the Neev disclosure. Accordingly, Neev does not disclose, suggest or inherently disclose all of the limitations of independent claim 30 as amended and the Office Action does not establish a *prima facie* case of anticipation. The remaining claims

depend directly or indirectly from claim 30 and should be patentable for at least this reason. Applicant respectfully requests that the Examiner withdraw the rejection.

35 U.S.C. § 103(a)

The Office Action rejected claim 34 under 35 U.S.C. § 103(a) as being unpatentable over Neev in view of Stewart et al. (U.S. Patent 6,268,586). As discussed above, independent claim 30 from which claim 35 depends from, is not anticipated by Neev. Stewart does not disclose or suggest the limitations not taught by Neev. Thus, a prima facie case of obviousness does not exist since all of the limitations of claim 34 have not been demonstrated to be present in the cited prior art. Accordingly, claim 34 is patentable at least by virtue of its dependency on patentable claim 30 and for this reason. Applicant respectfully requests that the Examiner withdraw the rejection.

The Office Action rejected claims 48, 49, 56, 57 and 60 under 35 U.S.C. § 103(a) as being unpatentable over Neev in view of Detalle et al. (U.S. Patent 6,532,068). As discussed above, Neev does not disclose or suggest all of the limitations of claim 30 and Detalle et al. also does not disclose or suggest these limitations. Thus, a prima facie case of obviousness does not exist since all of the limitations of the claim have not been demonstrated to be present in the cited prior art. Accordingly, these claims should be patentable at least by virtue of their dependency on a patentable base claim and for this reason. Applicant respectfully requests that the Examiner withdraw the rejection.

The Office Action rejected claims 51 and 52 under 35 U.S.C. § 103(a) as being unpatentable over Neev in view of Thompson et al. (U.S. Patent 6,195,164). As discussed above, certain limitations of claim 30 are not disclosed or suggested by Neev nor are they disclosed or suggested by Thompson. Thus, a prima facie case of obviousness does not exist since all of the limitations of the claim have not been demonstrated to be present in the cited prior art. Accordingly, claims 51 and 52 should be patentable at least by virtue of their dependency of independent claim 30, which is patentable. Applicant respectfully requests that the Examiner withdraw the rejection.

The Office Action rejected claim 61 under 35 U.S.C. § 103(a) as being unpatentable over Neev in view of Lai (U.S. Patent 5,984,916). As discussed above, all of the limitations of claim 30 from which claim 61 ultimately depends from are not disclosed or suggested by Neev, neither does Lai disclose or suggest these limitations. Thus, a prima facie case of obviousness does not exist since all of the limitations of the claim have not been demonstrated to be present in the cited prior art. Accordingly, claim 61 should be patentable for at least this reason. Applicant respectfully requests that the Examiner withdraw the rejection.

The Office Action rejected claim 62 under 35 U.S.C. § 103(a) as being unpatentable over Neev in view of Hacker et al. As discussed above, Neev does not disclose or suggest all of the limitations of claim 30 from which claim 62 depend and Hacker does not disclose or suggest these limitations either. Thus, a prima facie case of obviousness does not exist since all of the limitations of the claim have not been demonstrated to be present in the cited prior art. Accordingly, claim 62 should be patentable for at least by virtue of its dependency on patentable base claim 30. Applicant respectfully requests that the Examiner withdraw the rejection.

The withdraw claims in the application depend from patentable claims and thus include all of the limitations of the claims from which they depend and should be allowable and rejoined for at least this reason.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the end.

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